

OBITUARY.

The Council regret that they have to record the loss by death of the following Fellows during the past year :—

John Whitehouse Frederick Allnutt.
Charles Carpmael.
Arthur Cayley.
Samuel Palmer Chapman.
Edwin Clark.
Sir James Cockle.
P. Edward Dove.
Augustus S. Harrison.
Benjamin John Hopkins.
Richard Johnson.
George Knott.
James Leigh.
John Morgan.
William Peters.
Arthur Cowper Ranyard.
Rev. Henry Roe.
John Spencer.
William Tomlinson.
George Wall.

The Obituary Notice of Professor Cayley is unavoidably deferred. It is hoped that it may be printed in the next number of the *Monthly Notices*.

JOHN WHITEHOUSE FREDERICK ALLNUTT was born 1858 May 31. He showed ability very early, and could read fluently at four years old. He was educated at Mr. Thomas Smith's school, Southsea (1871-75); King's College, London (1875-79); University College, London (1881-82); and at the University of Cambridge as a non-collegiate student (1882-85). In 1883 he was awarded the Clothworkers' Exhibition as the most promising non-collegiate student of his year. He overtaxed his strength in reading for his degree, and in the Mathematical Tripos, 1885, his name appeared among the Senior Optimes. In 1883 he worked at practical astronomy under Mr. Turner, who was then demonstrator to the Plumian Professor of Astronomy at Cambridge, and he afterwards succeeded Mr. Turner in this capacity. He entered into the research work of the Plumian Professor with

the greatest devotion and zeal, carrying out long and laborious computations under his direction. Professor Darwin has more than once testified to the great accuracy of his work, which, although to a large extent numerical, was far from being such as could have been undertaken by a mere computer. It is doubtless due to the absorbing nature of this work that Mr. Allnutt communicated no papers of his own to the Society ; he took, however, a considerable interest in our proceedings, and attended our meetings with a regularity which is the more noteworthy when it is remembered that this attendance involved a long railway journey, and that his income was not a large one. His somewhat sudden death on 1894 January 27 was due to the after-effects of influenza. He had never been very strong, and for some few years his health had been far from good. A few days before his death, however, he had appeared to recover his strength, and was preparing for work again.

He was elected a Fellow on 1887 December 9.

CHARLES CARPMAEL was born at Streatham Hill, Surrey, on 1846 September 19. He was educated at the Clapham Grammar School, under the Rev. Charles Pritchard, and gained a Minor Scholarship at St. John's College, Cambridge, in 1865. He was elected a Foundation Scholar in 1868, and graduated as Sixth Wrangler in 1869. He was elected a fellow of St. John's College in 1870 ; in that year he was a member of the British Eclipse Expedition, observing the eclipse with the spectroscope at Estepona, near Gibraltar ; in 1871 he visited the United States and Canada, and settled at Toronto in 1872. In 1876 he was made Director of the Magnetic and Meteorological Observatory in Toronto, and in 1880 Director of the Meteorological Service of Canada. He was specially interested in magnetic observations, and devised an ingenious automatic temperature correction for the bifilar suspension of a magnet. He developed the Canadian Weather Bureau, and made many attempts to establish tide-gauges at various points on the coast, though the instruments were several times swept away by severe storms. On the formation of the Royal Society of Canada in 1882 he was appointed Vice-President of the Mathematical, Chemical, and Physical Section, and in 1885 was elected President. He served on three committees of the British Association.

He married in 1876 a daughter of the late Walter Mackenzie, Chief Clerk of the County Court, Toronto. For some time past he had been staying in the south of England for his health, and he died at Hastings on 1894 October 20. He was elected a Fellow in 1873 ; his papers contributed to this Society, to the Royal Society of Canada, and to the British Association, were chiefly mathematical, two of them dealing with the theory of errors. He drew up the report on the observations made in Canada of the Transit of *Venus* in 1882, and in conjunction with Professor McLeod determined the longitude of Toronto.

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